WILLIAM DECKER

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PROFESSIONAL SUMMARY

Resourceful Graduate Research Assistant pursuing a PhD in Biomedical Engineering with more than five years' experience in computational modeling. Experienced in working within collaborative environments to develop and evaluate finite element models. Clear and open communicator, skilled at conveying advanced topics in a relatable manner. Advanced abilities in LS-Dyna.

SKILLS

- Dynamic nonlinear finite element analysis (LS-Dyna)
- Human body model development and validation
- CAD Development (Geomagic Studio)

- Image Analysis (Mimics)
- Experimental biomechanics research
- Technical writing
- Academic presentations

WORK HISTORY

Graduate Research Assistant – 08/2015 to Current
Virginia Tech - Wake Forest Center for Injury Biomechanics – Winston-Salem, NC

- Developed and maintained various computational models ranging from football helmet models to full body human models for the Global Human Body Models Consortium (GHBMC).
- Served as senior student at the Full Body Model Center of Expertise for the GHBMC since Fall of 2017, tasked with updating and improving the family of 13 GHBMC models.
- Simulated and extracted data through a variety of simplified and full-vehicle impact scenarios including US Lateral and Frontal NCAP, and EuroNCAP pedestrian protocol.
- Led a team of three in the development of a finite element Schutt Air XP Pro football helmet model including: CAD development, meshing, model assembly, testing and validation at the local and full-helmet level.
- Prepared materials for quarterly reports, monthly sponsor updates, professional presentations, and submissions to peer-reviewed journal publications.

Summer Research Intern – 05/2015 to 08/2015
Partnership for Dummy Technologies and Biomechanics – Ingolstadt, Germany

- Compared various finite element human body models through structural test setups
- Aided in the development of a finite element functioning elbow joint model

EDUCATION

Ph.D.: Biomedical Engineering, 2020
Virginia Tech - Wake Forest University Winston-Salem, NC

Master of Science: Biomedical Engineering, 2018
Virginia Tech - Wake Forest University Winston-Salem, NC

Bachelor of Science: Biomedical Engineering, 2015
University of South Carolina Columbia, SC